Amendments to the Claims

1. **(Currently Amended)** A substrate polishing apparatus ~~characterized by~~ comprising:

a rotatable polishing table against which a substrate is pressed, said rotatable polishing table having a fluid chamber at a light-emitting and light receiving position thereof;

a light-emitting and light-receiving device to emit measurement light from said rotatable polishing table to ~~said~~ the substrate and to receive reflected light from ~~said~~ the substrate for measuring a film formed on ~~said~~ the substrate;

a fluid supply passage for supplying a fluid for measurement to ~~a~~ said fluid chamber ~~provided at a light-emitting and light-receiving position~~ of said rotatable polishing table, ~~said~~ the measurement light and ~~said~~ the reflected light passing through ~~said~~ the fluid for measurement; ~~and~~

a rotational angle sensor for detecting an angular position of said rotatable polishing table in a rotational direction of said rotatable polishing table; and

a fluid supply control device for controlling supply of ~~said~~ the fluid for measurement to said fluid chamber according to a positional relationship between said fluid chamber and the substrate which is detected by said rotational angle sensor.

Claim 2 **(Cancelled)**

3. **(Currently Amended)** The substrate polishing apparatus as recited in claim 1, ~~characterized in that~~ wherein said fluid supply control device ejects ~~said~~ the fluid for measurement to said fluid chamber during a blocking period during which said fluid chamber is blocked by ~~said~~ the substrate.

4. **(Currently Amended)** The substrate polishing apparatus as recited in claim 3, ~~characterized in that~~ wherein during an unblocking period during which said fluid chamber is not blocked by ~~said~~ the substrate, said fluid supply control device supplies

~~said~~ the fluid for measurement to said fluid chamber at a flow rate lower than a flow rate during ejection.

5. **(Currently Amended)** The substrate polishing apparatus as recited in claim 1, ~~characterized by~~ further comprising a compulsory discharge control device for controlling compulsory discharge of a fluid in said fluid chamber according to the positional relationship between said fluid chamber and ~~said~~ the substrate which is detected by said rotational angle sensor.

6. **(Currently Amended)** The substrate polishing apparatus as recited in claim 5, ~~characterized in that~~ wherein said compulsory discharge control device compulsorily discharges the fluid in said fluid chamber during a blocking period during which said fluid chamber is blocked by ~~said~~ the substrate.

7. **(Currently Amended)** The substrate polishing apparatus as recited in claim 6, ~~characterized in that~~ wherein said compulsory discharge control device continues compulsory discharge of the fluid in said fluid chamber during a predetermined post-blocking period after ~~said~~ the blocking period is completed.

8. **(Currently Amended)** The substrate polishing apparatus as recited in claim 5, ~~characterized in that~~ wherein said compulsory discharge control device restricts compulsory discharge of the fluid in said fluid chamber during a predetermined pre-blocking period before said fluid chamber is blocked by ~~said~~ the substrate.

9. **(Currently Amended)** A substrate polishing apparatus ~~characterized by~~ comprising:

a rotatable polishing table against which a substrate is pressed, said rotatable polishing table having a fluid chamber provided at a light emitting and light-receiving position thereof;

a light-emitting and light-receiving device to emit measurement light from said rotatable polishing table to ~~said~~ the substrate and to receive reflected light from ~~said~~ the substrate;

a first passage for ~~ejection~~ a high flow rate, said first passage introducing a fluid, through which ~~said~~ the measurement light and ~~said~~ the reflected light pass, to ~~a~~ said fluid chamber ~~provided at a light-emitting and light-receiving position~~ of said rotatable polishing table;

a second passage for a low flow rate, said second passage being restricted as compared to said first passage for ~~ejection~~ the high flow rate which introduces ~~said~~ the fluid to said fluid chamber; ~~and~~

a rotational angle sensor for detecting an angular position of said rotatable polishing table in a rotation direction of said rotatable polishing table; and

a switching ~~device~~ unit for switching into which of said first and second passages ~~into which said~~ the fluid is introduced based on a detection signal of said rotational angle sensor.

Claims 10-20 **(Cancelled)**

21. **(New)** The substrate polishing apparatus as recited in claim 1, wherein said fluid supply passage includes a passage for a high flow rate and a passage for a low flow rate which are connected to said fluid chamber.

22. **(New)** The substrate polishing apparatus as recited in claim 1, wherein the measurement light and the reflected light pass through the fluid for measurement along a direction parallel to a direction in which the fluid for measurement flows.

23. **(New)** The substrate polishing apparatus as recited in claim 9, wherein said first passage and said second passage are connected to said fluid chamber.

24. **(New)** The substrate polishing apparatus as recited in claim 9, wherein the measurement light and the reflected light pass through the fluid for measurement along a direction parallel to a direction in which the fluid flows.